



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
ONE DENVER PLACE — 999 18TH STREET — SUITE 1300
DENVER, COLORADO 80202-2413



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JUN 24 1986

REF: 8ES-FO

MEMORANDUM

TO: Kelcy Yarbough Land, 8HWM-SR
Environmental Scientist

FROM: Gordon R. MacRae, 8ES-FO *22 PM*
Environmental Scientist

SUBJECT: Air Sampling Plan for the Richardson Flat Tailings Site



At your request, I have reviewed the Air Sampling Plan for Richardson Flat Tailings. Although this document follows the general format stated in Hi-Vol monitoring SOP, it seems to be lean on details and explanation. As is this sampling plan will not be approved.

It is stated in the sampling plan that sampler sites were to be strategically placed. What criteria for siting was used? Other siting questions are:

- How far will the sampler be placed from the tailings area?
- What elevation will the particulate inlet be positioned above the ground?
- Are there potential railroad contamination problems at sites RFAM01 and RFAM06?
- Are there potential roadway lead contamination problems at RFAM04 and RFAM05?
- What type of generator will be used? Where will the generator(s) be placed relative to the samplers (distance, upwind/downwind, etc.)? Are there potential sample contamination problems due to the generator(s)?
- What was the rationale with placing a single PM10 (respirable) sampler at RFAM05?

Questions regarding field operations pertain to collection schedule and filters. The sample collection schedule proposed is daily (every 24-hours). As discussed prior to the Whitewood Custom Treathers' monitoring, a shorter period better coincides with diurnal wind patterns. We suggested at that time that 12-hour sampling be considered during the day in order to

coincide with stronger wind from one direction. This type of sampling schedule is appropriate here as well. Regarding filters, none are mentioned detailing type to be used for the TSP monitors or PM10. Will metals only be sampled for on the Hi-Vol filters or PM10 as well?

Additionally, no discussion was presented on sampling duration (why only five days instead of ten days as in SOP?) and on assumptions regarding uniform wind field across the area (ie justifying one meteorological station sufficient for upwind/downwind sampling).

These type of questions are relatively simple but important to the success of a good and cost-effective program. The questions asked need to be answered in the document.

cc: John Philbrook, 8ES-FO
Keith Schwab, 8ES



ecology and environment, inc.

4105 EAST FLORIDA AVENUE, SUITE 350, DENVER, COLORADO 80222, TEL. 303-757-4984

International Specialists in the Environment

TO : Keith Schwab, FIT-DPO
FROM : Henry Schmelzer, E&E-FIT
DATE : June 24, 1986
SUBJECT: Richardson Flats Air Sample Plan, Utah, TDD
TDD R8-8605-12.

In response to your questions concerning the location of the samplers and potential interference of the lead component please note below:

1. Although not clarified in the sample plan the generators to be used will use unleaded gasoline and be placed downwind of the sampler based on the prevailing wind direction.
2. Specific siting requirements from roadways listed in 40 CFR, Part 58, Appendix E, for lead are based on the exponential decrease in concentration with distance from source that lead exhibits. Siting criteria also takes the number of vehicles per day that use the roadway into consideration. Based on the table listed in the appendix the samplers should be placed at least 15-50 meters away from the roadway with a useage of 10,000 vehicles per day. This averages out to 7 vehicles/minute for 24 hours. Vehicle useage on U.S. 40 which goes along the eastern edge of the site is considered to have much less traffic volume than that and should pose no interference problem. Samplers will be placed as far as possible from all roadways including the dirt/gravel road that runs along the southern border of the site.
3. The dirt/gravel road will be wetted to prevent excessive loading of the filter on the sampler located along the southern border of the site.

4. Please be advised that due to diurnal fluctuations in wind direction, sampling will take place during daylight hours and last for 12 hours. The sample plan states 24 hours on page 6. This is in error.

cc: William Geise, REM-FIT Coordinator
Kelley Land, EPA P.O.